

What is claimed is :

1. An active material for positive electrode of a lithium secondary battery, which is expressed by the general formula $\text{Li}_x(\text{Ni}_{1-y}\text{Co}_y)_{1-z}\text{M}_z\text{O}_2$ (where $0.98 \leq x \leq 1.10$, $0.05 \leq y \leq 0.4$, $0.01 \leq z \leq 0.2$, M = at least one element selected from the group of Al, Zn, Ti and Mg), wherein according to Rietveld analysis, the Li site occupancy rate for the Li site in the crystal is 98% or greater, and the average particle size of the spherical secondary particles is 5 μm to 15 μm .
2. An active material for positive electrode of a lithium secondary battery of claim 1, which is subjected to a washing process, and wherein the difference in specific surface area between before and after the washing process is 1.0 m^2/g or less.
3. A lithium secondary battery using the active material claimed in claim 1 or 2 for the positive electrode.